

*Office Memorandum* • UNITED STATES GOVERNMENT

TO : Chief, Developmental Projects Division, DD/P DATE: 8 NOV 1960

FROM : Chief, Electronics Division/SI

SUBJECT: Modification of Ampex FR 100, FR 1100, and AR 800 Tape Recorders

1. It is strongly urged that tape recorders currently in use by CIA be modified to raise the record bias frequency from the factory established level of approximately 300kc to approximately [REDACTED] This modification improves the recorder for the following reasons:

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(a) The playback response on the standard playback equipments for the above series of recorders is very much peaked at approximately 100kc in order to provide the advertised flat frequency response. The playback amplifiers also contain one feedback loop. This circuitry produces pronounced ringing of the subharmonic 300 kc recorder bias.

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(b) Wider frequency response playback equipments are currently in use by [REDACTED] etc.. Using these improved frequency response playback equipments on original tapes from the above series Ampex recorders produces an effective frequency response in the neighborhood of 150-200kc/s. It is most desirable to have the record bias shifted well above the quarter or half megacycle nominal response of these new improved tape playback equipments.

2. The desirability of this modification was discussed at length in last summer's [REDACTED] sessions and was included among their recommendations. [REDACTED] Report 3.008 of 21 May 1960 (U) prepared by an [REDACTED] employee and generally agreed to by [REDACTED] also emphasizes the desirability of this modification.

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3. The attached sketch details what is involved. It may be quickly noted that this modification involves a very nominal cost for parts as well as reasonable time and may be accomplished by any qualified service personnel.

4. Considering the nominal cost involved and the genuine improvement in performance which results in this change, this Office can see no reason why the change should not be made to all units currently in use by CIA.

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Encl:  
Chart

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EXCLUDED FROM AUTOMATIC  
DECLASSIFICATION  
DATE 3/11/81 BY 2611  
REVIEWER: 037169

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change      from      to



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Modified bias oscillator in the  
amplifier.

record

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